The university is a social institution and as such has a social responsibility to advance knowledge through research that is ultimately meaningful and beneficial to society. As we seek to advance research and graduate education in kinesiology, we must accept ethical standards and professional expectations not only as an institutional value but as an individual value. It is important that we understand current ethical dilemmas, examine underlying factors that might contribute to scientific misconduct and professional misbehavior, and develop professional preparation programs that promote academic and scholarly integrity. Through graduate education in kinesiology, we can provide training in the responsible conduct of research and ethical pursuits so that our graduates can become ethically responsible leaders and scholars.

“It all comes back to values” (Duderstadt & Womack, 2003, p. 202).

Advancing disciplinary and interdisciplinary research and scholarship requires institutional commitment by colleges and universities to ethical pursuits and high expectations of professionalism among faculty, students, staff, and administrators. Advancing research in kinesiology requires no less. Although not alone in its quest for knowledge and scholarly inquiry, the research university plays a prominent role in terms of faculty research and graduate education.

Ethical Dilemmas

Many in the academy are aware of noteworthy research ethics cases. Among these is the Tuskegee syphilis study in which experiments were conducted to determine the effects of untreated syphilis on living African American males (i.e., subjects, not patients) in the first half of the 20th century (Jones, 1981). More recent cases involve prominent nutrition researcher Dr. Eric Poehlman, Harvard medical school surgeon Dr. Andrew Friedman, and psychologist Dr. Karen Ruggiero, who each fabricated research data in publications and grant proposals. Information about these cases and others can be retrieved through the Department of Health and Human Services Office of Research Integrity (http://ori.dhhs.gov/). The Office of
Research Integrity receives 200+ complaints annually and publishes the case summaries regularly.

Unfortunately, examples of ethical violations and professional misbehavior appear almost daily in the *Chronicle of Higher Education*, *InsideHigherEd*, and through other media outlets. The gamut of issues ranges from such issues as plagiarism, falsification of data, unreported income, and conflicts of interest to claims of earned credentials, awarding of academic degrees, and even more. Plagiarism seems to have become a relatively common ethical violation, and cases have been brought to light that involve undergraduate students, graduate students, faculty, and administrators including university presidents. Highly visible individuals including coaches and a former USOC President have claimed degrees they had not earned and more recently, at least two universities in the southeast United States have been investigated for awarding degrees to individuals who had not satisfied all requirements for the degrees. These are but a few of the examples that seem to support a “culture of cheating” that was identified by Callahan (2004) and seen throughout society and in high schools and colleges. An article published in *Nature* in June 2005 provided the results of a study of 3247 scientists in which 1.5% admitted falsification or plagiarism and 33% admitted professional misbehavior (Martinson, Anderson, & deVries, 2005).

Simply put, there has been an increase in the number of reports of scientific misconduct, ethics violation, and questionable professional behavior in today’s society. Some speculated that scientists who cheated lacked appropriate mentoring, were trained under different standards, had a mental disorder, or succumbed to external pressure. Denecke (2008) identified the following two phenomena to explain some of the current pressures on scholars:

• Encroachment of external pressures on academic research as interaction and interdependence intensifies among academic, commercial, and government sectors and

• The expanding scope of research responsibilities as a consequence of globalization of the scientific community. (p. 1)

Thus, it appears that professional (and perhaps personal) pressure within the university setting and external pressure to publish and secure extramural funding might have contributed to an increase in scientific misconduct and questionable professional behavior. Institutions of higher education must assume a leadership role in implementing a “values-based approach to graduate education in research integrity and professionalism” (Denecke, 2008, p. 3).

**Social Responsibility of the University**

Throughout their history, colleges and universities have been bound “closely to society, responsible to and shaped by the communities that have founded them” (Duderstadt & Womack, 2003, p. 1). Colleges and universities, especially public higher education, have responded to evolving societal needs and have become increasingly more engaged with society. As a consequence, higher education in the last half of the 20th century was influenced by the “valueless dynamics of the marketplace” and adopted many media driven and image building strategies. Scholarship became increasingly more professionalized, specialized, and fragmented. Our
discipline also engaged in these conversations through meetings of the American Academy of Kinesiology and Physical Education (AAKPE) and through articles published in *Quest*. Simultaneously, many colleges and universities became less concerned with issues of social justice and personal and social responsibility within the curriculum and academic discourse. In addition, graduate education became almost entirely focused on research training, with little attention given to professional ethics or even the preparation for teaching careers (Duderstadt & Womack, 2003, p. 202).

But now is the time for institutions of higher education to embrace the university’s role as a social institution with responsibility to and connection with society—a global society (Duderstadt & Womack, 2003; Kennedy, 1997). The missions of discovery/scholarship, teaching/learning, and service/engagement remain integral to a 21st century university. Inasmuch as service to society and civic responsibility are among the unique and most important aspects of higher education in America today, it is logical that engagement and civic responsibility have been extended to other types of institutions beyond the historical Land Grants colleges and universities. The increasing importance of engagement can be seen by the elective category established by the Carnegie Foundation for the Advancement of Teaching titled Community Engagement (for more information, please see http://www.carnegiefoundation.org/classifications/).

To effect change related to its social responsibility, higher education must refocus attention on civic engagement, personal and social responsibility, and ethics and professional expectations among its constituencies (e.g., administration, faculty, staff, and students). Graduate education has a particular role to play in this institutional transformation and must continue to focus on research training that gives “attention to professional ethics” and education that incorporates “the preparation for teaching careers” and stronger links to a global society. Because of its role and responsibility in preparing the future faculty and career professionals, graduate education must include programs that emphasize ethics and professional expectations. Graduate schools and academic departments/programs must provide opportunities through which graduate students can better prepare themselves to become global citizens and scholars and teachers. As a public good (Council of Graduate Schools, 2008), graduate education must continue to undertake research that addresses increasingly more complex societal problems and to share the results in a fashion that societal stakeholders can find meaningful and relevant. To do so requires graduate education programs to embraces a culture of ethics that promotes scholarly integrity and personal integrity, promotes high professional expectations, and educates ethical and socially responsible leaders, scholars, and career professionals.

**Scholarly Integrity in Graduate Education and Research**

Integrity in graduate education and research requires not only an understanding of the standards of compliance but also a personal ethical decision-making process of the individuals conducting research. In his book titled *Academic Duty*, Donald Kennedy (1997) described “To Tell the Truth” as an integral part of the academic
duty of faculty and challenged faculty to adhere to the highest standards of academic integrity and to conduct research in a manner that promotes quality, meaningful research and avoids all aspects of scientific misconduct and to provide responsible education of future scholars (Denecke, 2008). This requires us to embrace the “habit of truth” as encouraged by Bronowski (1965) and translate it into practice; this is often described in research methods or proposal writing books in kinesiology such as Locke, Spirduso, and Silverman’s book (2007) titled Proposals that Work. In this book and others like it, scholars in kinesiology challenge readers (mostly graduate students and new faculty) to understand the research process and ethical considerations, which include but are not limited to research design and methodology, appropriate use of statistics and other forms of analysis, interpretation and presentation of findings, protection of human participation and especially informed consent, safe use of animals, and more. The ethics of writing, publishing, and presenting are usually covered along with examples of “bad behaviors” to be avoided. These might include the following list adapted from Inzana (2007):

- Falsifying or fabricating research data
- Using another’s ideas without obtaining permission or giving due credit (e.g., plagiarism)
- Ignoring or circumventing human-subject requirements or animal-use guidelines
- Ignoring potential conflicts of interest and not disclosing involvement with firms whose products are based on one’s research
- Participating in relationships with students, research subjects, or clients that may be interpreted as questionable
- Using unauthorized and confidential information in one’s research
- Failing to present data that contradict one’s previous research
- Overlooking others’ use of flawed data or questionable interpretation of data
- Changing the design, methodology, or results of a study in response to pressure from a funding source
- Publishing the same data or results in two or more publications
- Inappropriately assigning authorship credit
- Withholding details of methodology or results in papers or proposals
- Using inadequate or inappropriate research designs
- Dropping observations or data points from analyses based on a “gut feeling” that they were inaccurate

The recent initiative of Responsible Conduct of Research (RCR) provides a framework for discussing specific components of research ethics. The Office of Research Integrity (ORI; see http://ori.dhhs.gov/) provides a valuable resource for the RCR initiative as well as definitions of academic integrity and policy-related issues. Responsible conduct of research includes guidelines for (a) data acquisition, management, and control; (b) conflicts of interest and commitment; (c) animal welfare; (d) human subjects of research; (e) research misconduct; (f)
authorship issues; (g) peer review; (h) mentor/mentee responsibilities and relationships; and (i) collaborative research.

In addition to the RCR initiative being developed at colleges and universities around the nation, journal editors are becoming more involved in the ethics of publishing. For example, the International Committee of Medical Journal Editors (ICMJE) developed guidelines for manuscripts submitted to biomedical journals. The guidelines, updated in October 2007 and available online, are divided into two major sections: ethical considerations in the conduct and reporting of research and publishing/editorial issues related to journal publication. As to be expected, many of the guidelines are similar to RCR and include the following:

- Conducting and reporting research
  - Authorship and contributorship
  - Editorship
  - Peer review
  - Conflicts of interests (authors’ commitment, project support, editors, journal staff, and reviewers)
  - Privacy and confidentiality (participants, authors, reviewers)
  - Protection of human subjects and animals in research

- Publishing and editorial issues
  - Obligation to publish negative studies
  - Corrections, retractions, and expressions of concerns
  - Copyright
  - Overlapping publications (duplicate submission, redundant publications, acceptable second publication, competing manuscripts on same study or same database)
  - Electronic publishing
  - Advertising
  - And more

### Academic Integrity and Professional Expectations

Beyond the issues related more to research ethics (research integrity), colleges and universities have the responsibility to promote academic integrity and adhere to high expectations of professionalism. Professional expectations exist within disciplines and even across disciplines (e.g., codes of conduct). Within university settings, professional expectations are often codified through documents titled “rights and responsibilities,” faculty or graduate student handbooks, faculty activity report and tenure/promotion guidelines, and of course through scientific misconduct guidelines. Not always so apparent is the commitment of universities to academic integrity in teaching, advising, mentoring, and outreach or engagement efforts—the ethics of teaching and learning, the ethics of mentoring and advising, the ethics of service and engagement. These are just as important as a more narrowly focused research integrity but have yet to garner the same level of attention in most institutions.

On the other hand, graduate schools and graduate faculty in academic units are engaged in the preparation of future scholars and can take a leadership role. Quality graduate education should incorporate documents through which graduate students can understand the expectations for graduate study, the university’s
principles of community, the ethical standards and RCR guidelines, and existing honor systems or honor codes. As one example, Virginia Tech Graduate School has developed a presence of such documents on its Web site (www.grads.vt.edu). In addition to these documents, coursework or seminars and workshops should be made available to graduate students by academic units or the graduate school.

In an article published in *Quest*, William Harper (1980) wrote about some conditions for graduate study that provide a foundation for expectations for graduate study today. These expectations included a quality graduate education, the challenge to oneself and others to demand excellence, contemplation of a “baggy idea of truth,” “time to fiddle with ideas,” and opportunity to develop a sense of community. Today, we could add ethical ambition as articulated by Derrick Bell (2002). As the author of *Ethical Ambition: Living a Life of Meaning and Worth*, he wrote that “ethics requires us to think deeply about our positions on issues, and to take principled stands as a result of those positions” (p. 50).

**Call to Action**

Ethics and professional expectations are critical as we seek to advance research and graduate education in the academy in general and in kinesiology in particular. Because universities have had a longstanding compact with society that was built on trust and integrity, our institutions must continue to reflect the academic community’s commitment to principles of truth, scholarship, and responsible education of future scholars (Denecke, 2008).

To begin, we (as members of the academic community) must acknowledge the university as a social institution with its social responsibility to advance knowledge through research that benefits the public. We must also understand current ethical dilemmas, examine the underlying factors that foster the perpetuation of scientific misconduct and professional misbehavior, and develop programs for positive change. Academic integrity must continue as an institutional value and as an individual value. Graduate education is well situated in the university and, therefore, must assume responsibility for educating ethically responsible leaders and scholars based on academic integrity as an individual value. The challenge is before us, and each discipline should act accordingly.

**References**


